THE GENESEE FARMER.

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THE FARMER.

SATURDAY, JUNE 8, 1833.

RUTA BAGA.

To those who wish to *try* the Swedish turnep, and desire information as to its culture, we submit the following considerations, the result of some years successful experience with this root.

The *soil* best adapted to the Swedish turnep is one of loose texture and dry, inclining to sand, gravel or loam. It should be rich, well pulverized and clean. A clover ley, covered with yard manure previous to its being ploughed under, is to be preferred.

The *preparation* for the crop consists in one perfect ploughing, if a ley, a faithful harrowing, and the roller may be applied between the ploughing and harrowing with benefit.

The *season* for *sowing* is from the 25th June to the 5th July. A cutting of early clover may be first taken off the ground.

The best *method of sowing* is with the drill barrow, an implement which costs ten or twelve dollars, and which comes in use for other purposes, in drills two and a half feet apart. With this a man will put in four or five acres a day. The crop may also be sown broadcast, or drilled in with a line and hoe, though the operation is more tedious, and, when sown broadcast, the expense of cleaning and thinning materially increased.

The *quantity of seed* requisite for the acre is one pound—cost six to eight shillings—though if well drilled, half this quantity will suffice.

The *after culture* consists in thinning the plants and keeping the crop free from weeds. The plants should be thinned to eight or ten inches, as soon as they show the second or third pair of leaves, and it is important to have the first weeding performed early, as this not only benefits the crop, but saves subsequent labor.

The *implements* best adapted to the turnep culture are the cultivator, or horse hoe, and turnep hand hoe. The first is passed between the drills as soon as the plants show their second pair of leaves, and may be repeated at intervals with little expense and manifest advantage. It destroys the weeds, if applied in time, except on a strip of two or three inches where the plants grow, pulverizes the surface, and renders the soil permeable to atmospheric and solar influence. The operation of cleaning is finished with the hand hoe, the cutting part of which may be likened to the blade of a thin case knife, the two extremities of which are drawn out, turned up, united, and form the shank to attach the hoe to the handle. The advantages of this hoe are, that it does not gather the dirt and weeds, and may be drawn along the drills as far as the arms extend without being raised, and across the drill, between the plants to be retained, and almost wholly supersedes hand weeding. Two cleanings with the hoe generally suffice.

Gathering the crop is performed with the greatest economy of labor, by drawing the turneps by hand, and laying them separately across the drills, the roots of two adjoining rows towards each other, and then with a heavy knife, bell hook or like implement, strike off the tops with a blow as they lay, which is managed with great expedition. The roots are first gathered, and taken to the pit or cellar, and the tops, which are abundant, are then raked into small piles, and taken to the yard for the farm stock as they are wanted.

To secure for winter pits are made in the field, upon dry ground, two and a half feet broad, and as long as may be convenient, and of two to four feet in depth. These are filled, and the roots piled above the surface, in a roof-like form, till they terminate in a ridge. A slight covering of straw is then given, and the whole covered with earth, two feet or more in depth. A salutary precaution is then to make holes, with a bar, at intervals of three or four feet, upon the ridge, through the covering, that the rarified air which will be generated may escape. This may be partially closed with a wisp of straw. Another precaution is to cover the mound with a coat of yard manure early in December, the better to exclude the frost.

The *product*, under good management and on a suitable soil, is seldom less than six hundred bushels per acre, and often much more, of roots, besides a heavy burthen of tops, of which neat cattle are very fond.

Use.—This turnep is far more nutricious than the common turnep, keeps much longer, and is greedily devoured, cooked or raw, by horses, cows, sheep and hogs; and is withal a very excellent vegetable for the table, particularly from Jan. to June. We are still feeding to cowsand oxen (May 23) of the crop of last year. Our cows have ate them daily for nine weeks, and yet the turnep taste has not been perceptible either in their milk or butter—*the cows having daily access to salt.* To the sheep husbandman this root will be found peculiarly serviceable, if fed to his flock in winter and spring.

Of all root crops, if we except the common turnep, this is the least exhausting, occupies the ground the shortest time, is cultivated with the least expense, is saved with the least care, and we think makes the greatest return in food for animals. B.

UNDER DRAINING.

Straw Underdrains are constructed in many districts of Europe, where other materials are deficient; and are often permanent in their benefits. They are thus constructed. A trench is first dug say two feet deep. The workman then commences with a small tapering spade, of six or seven inches at the top, and tapering down to three or four, to take a spit from the center of the bottom, leaving equal shoulders on each side, so as to present a bottom cut of six inches broad and six deep. Straw is then twisted into hard ropes of a size sufficient to fill this, and pressed into it. Turfs or the most tenacious portions of the earth are then laid upon the straw, and the trench filled. An intelligent laborer tells us he has made miles of such drains, and that having had occasion to dig across them years afterwards, he has found the straw wholly decayed and gone, and the aperture retaining the perfect shape which had been originally given to it. B.

EFFECTS OF THE LAST WINTER
IN CAYUGA COUNTY.

Although the winter in many respects, was much milder than the preceding, yet several of my shrubs have suffered *more* severely. A double Althæa (*Hibiscus syriacus*) which has stood since 1825, appears to be entirely killed. The holly, though well cased in evergreens, has lost every leaf, and several inches of the ends of the branches. Who in the Genesee country has been more successful? I despair of succeeding with this fine tree.

Rhododendron ponticum, and *Styrax glabrum*, though quite as well sheltered as in former years, are entirely destroyed; and *Aralia spinosa* which in the preceding winter, had only lost a summer's growth, now appears to be killed to the ground. *Vitex agnus castus* has fared no better; neither have two varieties of the pomegranate (double and single) also well banded with evergreens. Only a small part of *Periploca græca* is left alive.

An experiment on *Hydrangea hortensis* was made by a very liberal application of hemlock boughs, to ascertain if it could survive without *laying down*; but it is dead to the ground. *Hydrangea quercifolia* is undoubtedly a hardier plant; and if its inability to withstand the frost in England, has not been exaggerated, I would ascribe the difference to our hot summers in maturing the wood. It was rather more damaged than in the preceding winter, which may be imputed to a diminished vital energy, in consequence of having blossomed last summer: it was the first time.

On the contrary the Isabella grape which was left on the trellis is in the finest condition, though it had nearly perished in the winter of 1831-2. The black Orleans (black cluster?) the only exotic vine which I left uncovered, is but slightly damaged, and will doubtless bear fruit, for the first time under such exposure. Among the shrubs which have wintered better than in former years, I may mention *Bignonia radicans*, *B. grandiflora*, *Kerria japonica*, *Coronilla emerus*, *Jasminum humile*, and *Lonicera flexuosa*. The last has new branches several feet from the ground, which has not happened before in five years.

The warm weather in the first month caused the blossom buds of the peach and of the apricot to *start*; yet although the thermometer was afterwards down nearly to zero, the damage was far less than I anticipated. About two thirds of the apricots were killed, but a smaller proportion of the peaches. Notwithstanding there is young fruit in abundance on the trees. D. T.

Greatfield, 5 mo. 27, 1833.

☞ Green Peas were picked on the 27th ult. from the garden of E. C. Delavan, of Albany.

☞ Green Peas were picked in the garden of Alexander Gordon, at the Rochester Nursey, on Saturday the 1st inst.

FINE FRUIT.

The letter from which we take the following extract, was received more than two months since and mislaid, or we should sooner have given it a place in our pages. It is from a subscriber in Hudson. If it shall induce but one Farmer to plant a grape vine, we shall think the space it occupies well filled:

"An increasing attention is paid in this country, as elsewhere through the state, to Agriculture; but a practical *action*, I wish I could say *attention*, is increasing here in a still greater degree in Horticulture. In this, however, little more is yet done here, than to receive the rays of light which stray from other more luminous points, and to direct them as well as we can into gardens and orchards.

"The real difference between first rate fruit of any species, and the common kinds, is understood by few; and by fewer still, is the difference understood between allowing such fruits to grow, as spring spontaneously around them, and by skill and attention begetting upon dame nature in her old age, a new, more lovely, and charming progeny, and training them to possess and exhibit more beautiful and excellent qualities, and to exercise a more benign and pervading influence, than any of her elder born. A diffusion of more of the *elements* of horticulture, is what most of us need.

"'The error in most papers of the kind, and I think of yours, is, that it gives its readers credit for more knowledge in the first principles of the art than they possess, or think they possess; and as they are uniformly too modest to avow their ignorance, they continue unenlightened, and struggle daily with difficulties, without practice, without tuition which is radical, and without leisure for that constant observation which alone can compensate for a want of primary instruction. I speak from experience. I was bred to practical agriculture, as it was understood at and around the house of my childhood and youth. But horticulture, in its elements, and in its choice and elegant departments, was all a mystery to me. And so it was with others, and is so yet to nearly the same extent. My farm now, is less than an acre. The choicest things which can be grown to regale the senses and awaken devotional feelings, are those and those only, which seem worthy to occupy my leisure hours, adorn the play grounds, and look on the pastimes of my children. I have not time to spell out from the book of nature, the lessons I am anxious to learn: I do not know on what page of that glorions book I may find them, even to spell at. The gardens, and the rich fruits of the experienced, are out of the range of my vocation. What I occasionally see of them, seems like glimpses of enchanted ground, and I sigh in vain for their possession; for like most others, I am chained down to duties which lead me perforce away.

"Where then, but from the press, and in the periodical page, am I, and those like me, to find the information I need? Four years ago I began my little plantation. I thought, among other things, to construct a large arbor, and have it covered with vines, that my infant brood, in the open air, might be sheltered from the burning suns of summer. I then thought the wild grape of my native woods, for hardihood and foliage, the best for my purpose. Opportunely a number of the New-York Farmer met my eye, in which I first learnt of the Isabella, red Bland, and others, hardy as those which clothed the hills I rambled over in boyhood, and far excelling them in luxuriance of foliage and excellence of fruit. Immediately I sent my subscription for the paper, and my order for the plants I wished, and for two years past, myself and household have literally enjoyed, and "sat under our own vines," and gathered from them in abundance the fruit of our labor. I now have vines of almost incredible growth of eight varieties of hardy grapes of great excellence, besides foreign varieties; most of which have borne much fruit for two years, and interlacing their long branches far above our heads, they reached toward us as if in mockery, their rich clusters of different colors, side by side.

"In the fruiting season, 'tis a rich repast to the eye and to the heart, not of children only, but also of any one, who can look through these good things of a gracious Providence, to the great Giver of all! But though most of my neighbors suppose me before them in horticulture, and in a single branch of it I may be, yet in all things else I am like them in ignorance of its principles, and of nearly every thing useful to the unpracticed. We want to be taught its alphabet—its simplest combinations—its first operations—its plainest processes; the very things which the adept supposes the child must know. Of these we are all, nearly all of your subscribers deplorably ignorant; and too proud to ask. Those who contribute to your work, seem desirous to show their science,—their rare discoveries. All this is well; but it is not well that this should be all. The season is at hand, when 'line upon line, and precept upon precept,' of the most familiar things to the initiated, will be like grains of gold to $\frac{99}{100}$ths of your readers. I wish I could deposit such precious *seed*, that it might weekly fly, on thousand, thousand wings, and bear abroad from your press, embryo wealth and happiness to all the land. But though I cannot, there are those who can, and I hope the season as it opens will teem with it."

THRASHING MACHINES.

These instruments have become a very important item in the farmer's operations, from the great rapidity of their execution, and their supposed labor saving properties; and to those farmers who live in the neighborhood of the canal, or those whose necessities require the sale of their wheat crop in the fall, they are of some importance; but whether their general introduction will eventually prove beneficial is a moot point which we shall presently make some observations upon. The rage for these machines has led many farmers into great expenses and losses, from the many impositions practiced upon them by new invented machines, of which there are as many kinds as there are *queer, sky larking, three cornered* geniuses in the country. The great failure is from the miserable manner in which they are constructed. The constant recommendation of every new machine is its cheapness; and the general lack of mechanical skill in the farmer causes them to *turn tail to* about as quick as the inventor *turns his back*. Almost any of the machines that have been introduced will thrash, if faithfully and permanently made. There is not so great difference in their speed of doing the work as many pretend; and it is perfect nonsense to say, that two horses with one machine, will do as much work as four on another—there must be a *quid pro quo*, something for something, in all machines requiring power.

Some machines are so badly made that they fly to pieces and endanger life. We know of one kind that has the property, not exactly of building barns, but of making two out of one, by the cast iron beaters flying off by their centrifugal force, and passing through the roof and sides of a barn with the ease and speed of a rifle ball.

One fault of most machines is that there is no attention paid to keeping the spikes of the cylinder running evenly betweem the spikes in the bed piece; by which fault a very great proportion of the berries are broken, about one half of which are lost by the farmer, and the balance by the miller, in their screenings. An experienced miller has informed us that he has seen a lot of wheat in which the broken kernels amounted to ten per cent. The cause of this fault is that the journals or gudgeons of the cylinders have not shoulders enough to keep them in their places, and they play backwards and forwards till the teeth or spikes come in contact with each other, and injure the grain and ruin themselves; this failure should be looked to, as it will form a disqualification in the market. The important thing for farmers to look at in purchasing, after selecting the best plan—and we on our part give the preference to the spike machine—is, to see that it is well and honestly made, of good materials, and in a workmanlike and mechanical manner; that the gudgeons or bearings are long, well turned, run in metal boxes; the cylinder perfectly balanced, and the spikes well driven and secured; and when in operation, to keep it well oiled in every part where there is any friction. On the subject of the benefits of the general introduction of this machine, we shall endeavor to give our opinion next week.

MEMORANDUM.

May 23.—This day gathered and planted six quarts elm seeds, in drills two feet apart, designed to furnish plants for live fences. I found that some plants of the elm had accidentally got among my three thorned locusts; and from my observation and experience, am induced to believe, that they will afford an excellent material, either of themselves, or mixed with the locust, for live fences. They seem particularly adapted to interweave or wattle, in order to form a strong horizontal barrier. EXPERIMENTER.

ORIENTAL CYPRESS TREE.

The American Farmer recently published a letter from Com. Porter to Mr. Skinner of Baltimore, to whom the writer had sent from Peru in Turkey, some of the seeds of the Oriental Cypress Tree, to be propagated in this country, from which we make the following extract:

"Every body has read of the beautiful and extensive cemeteries of Pera and Constantinople. It is to this tree they owe their beauty. It is not worth while to go into a minute description of it. It is sufficient to say, that it is the most appropriate tree for grave yards; and, as the question has been agitated in some of our papers, how our grave yards should be ornamented, I send these seeds. The tree is an evergreen; the top of a beautiful elongated conical form. It grows to a goodly size, and of an enormous hight, as thick as they can stand; and may be propagated from cuttings as big round as the leg or arm."

SHADE TREES.

At page 150, this volume, is an excellent article from the American Farmer on the subject of clearing away the trees from buildings on new lands. The writer very justly reprobates the practice of cutting away all the forest beauty from the ground, but he does not go far enough to propose a sufficient remedy for the object he wishes to accomplish. On a little reflection it will be found that the forester, when clearing up his farm and annihilating every proud and noble tree before him, is not so much to blame. Experience has taught him, if he is a woodsman, that when individual trees which have grown up in a dense forest are left, while the rest are all cut down around them, owing to the manner of their growth, they are illy prepared to stand the scorching heats of summer, and the rude, cold blasts of winter; and in very many instances they either die from the effects of the sun, and the exceeding dryness of the now opened and cultivated soil; or that the first powerful wind uproots and entirely prostrates their noble stems to the earth. Young trees too, if left standing, often die from the severe change they undergo in thus being introduced, as it were, into a new climate and atmosphere. So that it is oftentimes more profitable to cut every thing away, and then obtain thrifty saplings from open grounds and transplant them where they are wanted. Trees, if well planted in good soil, grow rapidly, and soon form a fine shade. Still, if the timber be tolerably open where the clearing is to be made, scattering trees ought always to be left, as a shade is then supplied at once The plan of leaving a grove is a good one; but even then it ought not for several years to be underbrushed of its small wood, as the wind would make great havoc with it.

In all instances when large and high trees are left, strong rooted ones should be selected; and those also which have a large share of alburnum or sapwood in their composition. These will better withstand the change of exposure; and the severe heading which will be required. These trees it will be necessary to cut off twenty, thirty, or forty feet from the ground, as circumstances may require; and if they are of maple, sycamore, white ash, basswood, elm, or poplar, which are by far the best, will rapidly throw out a new, and in a few years, a heavy spreading top. But without such management, little good can be derived from leaving promiscuous trees in a clearing.

I admire the beautiful poetic feeling, and the deep toned enthusiasm in the article quoted; and most heartily wish that those who so recklessly lay low so many of our splendid forest trees, could but catch a share of such high reverence for those living monuments of by gone centuries. What a noble subject to look upon is a lofty open forest! How grand those vast columns, upholding such broad, far-spreading branches! How solemn and imposing their immense shadow! What a place to contemplate the power of Almighty God! In their giant stems and brawny limbs, how rich are the labors of time; in their immense duration what emblems of eternity! Go, every land-holder, and plant a forest tree.

ULMUS.

☞ It is estimated that the farmers of the upper counties of Virginia, have lost 300,000 bushels of grain by the late freshet.

METEOROLOGICAL TABLE.

KEPT AT ROCHESTER, FOR MAY, 1833.

	10 A. M.				10 P. M.			
Days.	therm.	barom-eter.	winds.	sky	therm.	barom-eter.	winds	sky
1	70	29,65	N W	fair	62	29,60	N W	fair
2	66	29,75	N E	do	48	29,80	N E	do
3	[illegible]	29,85	E	do	52	29,75	E	do
4	54	29,65	S W	cloudy	52	29,60	S	cloudy
5	56	29,60	E	fair	56	29,60	N E	fair
6	80	29,55	W	do	68	29,50	W	do
7	76	29,50	W	do	69	29,45	W	do
8	77	29 40	W	do	60	29,50	N W	do
9	68	29,65	N E	do	56	29.55	N E	do
10	67	29 45	S	cloudy	58	29,45	S W	cloudy
11	68	29,45	S	do rn5-10	62	29,50	W	do
12	54	29.50	N E	do 4-10	54	29,45	N E	do
13	56	29,55	N E	do 18-10	55	29,65	N E	do
14	54	29,15	N E	do 5-10	52	29,45	N E	do
15	58	29,65	N	do 1 in	58	29,75	N E	do*
16	70	29,65	E	fair	62	29,55	E	fair
17	78	29,50	S E	do	70	29,40	[illegible]	do
18	8[illegible]	29.35	W	do	70	29,35	N W	cloudy
19	7[illegible]	29,40	W	do	66	29 45	W	fair
20	76	9,45	W	do	64	29,25	E	cloudy
21	7[illegible]	29,10	W	cloudy	56	29,35	W	fair
22	66	29,45	W	fair	54	29,55	W	do
23	62	29,70	S W	do	52	29,75	N E	do
24	6[illegible]	29,80	E	do	56	29,75	E	do
25	66	29,60	E	do	58	29,45	S	cloudy
26	66	29,45	W	do	60	29,45	N W	fair
27	68	29,40	N E	do	65	29,35	W	cloudy†
28	64	29,55	W	cloudy	55	29,55	N E	fair
29	72	29,20	S	do	50	29,35	N W	cloudy
30	64	29,35	W	fair	52	29,40	W	fair
31	66	29,50	W	do	60	29,45	W	do

Means, therm. 62⁸—bar. 29.51 – rain, 6 1-10in

* Spring water 50⁸. † Thunder shower.

THE LATE RAIN,

Commencing on the 11th, and ending on the 14th, produced $4\frac{2}{10}$ inches on the surface. The Genesee river continued rising till Saturday noon the 18th, when it was higher, from four to eight inches, than at any time this season. The uncommon drouth of the spring had rendered the earth dry and hard at the surface, while yet saturated with moisture at a little depth, as the condition of springs and wells demonstrated. We have never known a more rapid accumulation in our river, and we can easily perceive that had the same amount fallen in half the time, (which might very possibly have happened,) our whole town must have been inundated, and the damage incalculable. Such an event should be timely anticipated by confining the river to its proper channel. The rain ceased on the evening of the 14th, and the rise of the water at the mouth of the Genesee continued till the 18th, $3\frac{1}{2}$ days, and then declined. Its tributary streams as well as itself, have consequently a rapid current, and subject the dwellers upon its margin to the inconvenience of an occasional flood. The accumulation will of course be greatest in the vincinity of Rochester, or at its mouth, and as this tendency is increasing every year, as the earth on its borders is rendered less susceptible of transmitting moisture, by cultivation, the greater portion of water will find its way to the main channel, which will be yearly augmented on such occasions, and another spring may subject us to a disastrous flood.

The depth of rain in the spring months of 1831, was $7\frac{9}{10}$ inches—in 1832, $6\frac{6}{10}$, and in 1833, 8 inches. The depth in May 1831, was $2\frac{8}{10}$ inches—in May, 1832, $4\frac{8}{10}$, and in May, 1833, $6\frac{1}{10}$ inches.

It is a common remark that a wet month or season is commonly succeeded by a dry, and vice versa. This observation has much truth in it as a glance at our tables will demonstrate. ***

MESSRS. EDITORS—I think your correspondent, a Practical Gardener, does not recommend the very best expedient for destroying the turnep-fly and other insects in hot-beds. Because, firstly, I think his expedient is very tedious. Secondly, it is very uncertain. Thirdly, if a part escape they will inevitably destroy the young plants.

I deem the following much better adapted to the object: Take a tea-spoon full of sulphur or brimstone reduced to a coarse powder—put it on a small piece of paper and lay it in the hot-bed—then light a piece of brown paper and lay it burning on the sulphur—it will soon set the sulphur on fire, then put down the sash close. The burning sulphur will destroy all the oxygen in the frame and pervade every part of it, destroying every living thing within it. After two or three minutes the sash may be raised and the sulphuric fumes blown out and no insects will be left to do mischief.

Such is the conviction derived from practice and theory. Yours, &c. R. M. W.

Potter, May 25, 1833.

"Ill fares the land, to hast'ning ills a prey,
Where wealth accumulates, and men decay—
Princes and Lords may flourish and may fade;
A breath can make them, as a breath has made:
But a bold peasantry, their country's pride,
When once destroyed, can never be supplied."
Goldsmith.

MESSRS. EDITORS—I have read with much pleasure the remarks of Ulmus, in number twenty of the Genesee Farmer, and can estimate the feeling which prompted them; and with the exception of the remarks about the Dutch, are worthy of the entire approval of every man who claims to be a friend of mankind. The Dutch it is true are a queer people, but have many good traits about them, and should be received with pleasure, as a valuable part of our population. I was once strongly prejudiced against the manners of the Dutch, but on more intimate acquaintance most of my prejudices were removed and I found much to approve and little to blame. The remarks of Ulmus, do honor to the head and heart that dictated them, and cannot fail to meet with much approbation from the reflecting and observant part of your readers. Yours, et cetera. R. M. W.

Potter, May 27, 1833.

AGENTS FOR THE FARMER.

Mr. ISAAC M'CAGG, *Hudson.*

Messrs. LESLIE & SONS, Booksellers, *York, Kingston,* and *Dundas, U. C.* of whom the back volumes may be had.

Messrs. DURAND, *Delaware, U. C.*

DANIEL LONGSTRETH, *Warminster, Pa.*

Mr. JAMES KELLY, *Doylestown, Pa.*

NICKING HORSES.—A writer in the New-York Courier and Enquirer on the subject of diseases and wounds incident to horses, thus closes an emphatic paragraph:—"Every man that has the tail of his horse cut off, nicked or pricked, should have the fore finger of his right hand cut off, and so should the operator."

☞ A pint of *Strawberries* of a large size and delicious flavor, were picked from the garden of H. N. Langworthy, in this village, on the first inst.

Linnean Botanic Garden, Flushing, May 18, 1833.

MESSRS. L. TUCKER & CO.—I transmit you an account of a species of Clover, which appears to possess great merit, and of which I recently imported a small quantity of the seed.

Yours, very respectfully,
WM. ROBERT PRINCE.

TRIFOLIUM INCARNATUM, OR FLESH COLORED CLOVER.

The culture of this species has been latterly very much extended in Europe, and is now becoming general in many foreign countries. Although it only allows of cutting once, and is, when in a dry state, inferior to the white clover, there exists nevertheless but few grasses which afford such great advantages to the agriculturist, since it can be cultivated with so little care and expense without deranging the requisite rotation of culture, and yields very abundant crops of forage.

It has also the valuable property of producing very early pasturage, and may be devoted to this object, or cut as green fodder, perhaps sooner than any other grass, thereby affording to the farmer an invaluable resource for the nourishment of his stock at a period when most requisite.

The seed is sown in August or at the beginning of September, and usually upon the same fields whence grain has just been harvested; the ground being first prepared by a very slight ploughing. The crop may be cut for green fodder early in May ensuing; and from the 15th to the 25th of the same month if intended for dry fodder, thus leaving the ground free to be made use of for a summer crop.

This clover has the advantage of succeeding on almost every kind of soil, and also offers a valuable resource for re-sowing any portions of fields where other kinds of clover have failed.

TO DESTROY THE APHIS OR PLANT LOUSE.

When *Aphides* or plant lice infest a tree, they commonly resume their depredations, year after year, till their total destruction in some form or other, supervenes. Last season I had some small trees of *Sorbus aucuparia* which suffered from these visitors; and in the latter part of winter, I observed many minute eggs deposited on the buds. Having doubts whether soft soap, as prescribed in Prince's Short Treatise would *addle* them, I waited till the insects were hatched, and the buds were beginning to open, before I applied it. My success was then complete, and not one as far as I could discover, was left alive.

Greatly to my regret, this season our snowballs (*Viburnum opulus*,) are nearly despoiled of their beauty by these pests. To dispossess them at this time would be no easy matter, nor would it avail much; and my only comfortable prospect is towards another spring, when I shall hope by the above process to extinguish their race in that quarter. I wish not to be understood however, that others may not come in the course of the summer. I am satisfied that they migrate in some way; but when all are destroyed from a tree at the commencement of vegetation, a new colony commonly arrives too late to effect much mischief in that season.

It has been with some regret that I have just seen an article in the papers, certifying that to plug trees with sulphur is an "unfailing" method of driving away all kinds of insects. I would be courteous toward those who believe in this *nostrum*, but I am confident that they have been deceived in the matter; and I beg leave to refer them to my remarks on this subject at pages 269 and 369 of the Genesee Farmer, Vol. 2. At this moment there is plenty of sulphur in some of *those* pear trees, and yet the *aphides* are numerous on the leaves and branches.

I am obliged to E. WILBUR for publishing his experiments; and in return I will inform him how I manage these *plant-lice* when they infest my grafts. I take the graft between my thumb and finger, and press—moving slowly—hard enough to mash the insects, but not hard enough to damage the tender leaves. It requires some patience, but it is very effectual; and sometimes so completely have they disappeared after the operation, that I have supposed the smell of carnage was offensive to them. I have also applied grease which suffocates them, but it damages the leaves.

A PRACTICAL GARDENER.

ON GARDENING—No. IX.

In the Farmer of last week I find some very severe strictures on that delicious and highly esteemed portion of an English dessert—*the Gooseberry*, (the English sorts,) as being unsuited for this climate; and the whole tribe of those imported from that country at once consigned to oblivion. This is very disagreeable information to one who, like myself, has made the cultivation of this highly esteemed fruit a favorite pursuit; but truth, loss and disappointment, have convinced me of the justness of the remarks in the Farmer.

Nearly six years ago, when on the eve of paying a visit to the United States, I took charge, during the voyage, of a most extensive collection of the very finest sorts of the Gooseberry then known in England, and brought the greater part of them safe to this country. By a strange coincidence of circumstances, after having many times crossed the atlantic, and traversed above one hundred thousand miles in the interior, those identical trees are now in my possession. During last fall and this spring I used every effort in my power to renovate my old acquaintances; my exertions were evidently attended with success, for, three weeks ago, I had the pleasure to see as excellent a crop of gooseberries as man could wish for. But alas! how evanescent are all sublunary gratifications!—I could not be able this day to gather from the whole plantation *one* pint of berries free from mildew. As far, therefore, as this circumstance enables me to judge, I willingly second the motion of sending the whole tribe of them "to the——brush heap."

ON SUMMER PRUNING THE VINE.

In the Genesee Farmer, Vol. 2, p. 317, I advanced some remarks on the propriety of paying a due attention to pruning the vine in summer. This is the proper season for this operation being performed as respects the principle shoots, although the secondary growths will require attendance during the whole of the summer; but having given my ideas fully on the subject in the number alluded to above, a recapitulation would be unnecessary here. The substance, however, was—

That during the growth of the vine in summer, the bearing vines for *next* season must be selected: all extraneous shoots taken away as soon as they appear, and *never, on any account*, to detach a healthy leaf from those vines bearing fruit in the present season, or those intended for bearing fruit the ensuing season.

There is also another circumstance which demands particular attention at this time. When we commence growing any sort of fruits, (it is immaterial what,) I believe it will be universally admitted that the object in view is to obtain a large crop of good fruit. This being the object, the means by which it is to be obtained merit attention. As respects the grape vine it is decidedly under our control. If the vine is in a vigorous and flourishing state, judicious spring and summer pruning and properly *thinning* the bunches, are the principal points requisite to insure success. To those unacquainted with the cultivation of the grape, it may appear rather as hazarding a *good* crop to thin and regulate the bunches; but there can be no question that the value of grapes will invariably depend more on the weight of each individual bunch, than by a number of bunches from the same space of surface producing equal weight. An eminent writer on Horticulture has said—"select and compare fifty single berries" (he might with justice have said the same as to bunches) "of the largest size with an hundred others of the same aggregate weight, equally in a state of maturity, the preponderance in the scale of merit will be given, I apprehend, by all competent judges, to the fifty instead of the hundred." These sentiments are in perfect unison with my own on this subject; and taking it for granted, it is a general maxim. The point then to be considered is, how is this maximum of merit to be obtained? As before observed, this is easily accomplished with a healthy vigorous vine, by a practical man; but I am not writing for practical men—I write for those who are desirous to enrich their gardens by simple means and at a small expense. The grand secret in producing a fine large bunch of grapes is, not to overload the vine,—to regulate the bunches, leaving them as far as practicable equi-distant from each other; divesting the tree of all lateral shoots which would prevent a free circulation of sun and air, and deprive the fruit of its proper nourishment. But, query—What is the proper distance? Ay, there's the rub. This is a point on which no strictly accurate idea can be conveyed by written instructions; but as a general data I shall give the following, which I consider a fair criterion for a healthy vigorous vine. Take the Isabella for instance. To every bunch on an Isabella grape I would allow a space of about one foot square; and for smaller, or less free growing sorts, a space of about nine or ten inches square. When the vine has the least tendency to unhealthiness they must be thinned in a much greater degree, or death will inevitably ensue. It would be inconsistent to expect a sick man to perform the same labor and bear the same burdens as another man in health and vigor; and the comparison is just the same with a sickly vine; if its renovation is desirable, the less fruit it is allowed to bear, the sooner will this be effected.

ON THE STATE OF GARDENING AT BATAVIA.

Of all the arts and sciences,—of all the indulgences, gratifications, and comforts, which man studies, or endeavors to surround himself with, I know of none, which creates a greater degree of

emulation among our contemporaries than Gardening. How many instances have been witnessed where the most gratifying results have originated from the example and exertions of one individual, who had a taste for surrounding his habitation with the beauties of nature, and adorning his garden with Flora's captivating treasures. Gardening requires only a beginning,—'tis like "the nestling eagle, flutters ere it flies."

Once begun—onward, onward, it creates an impetus within itself. I never yet knew an instance where a taste for gardening existed on a scale, large or small, that it retrograded or remained permanent. No cessation in its pursuits. How gratifying therefore to every lover of the art, to see it not only commenced, but to see it making rapid strides to the summit of perfection.

These observations are elicited in consequence of having recently visited *Batavia*, where I was most sincerely gratified by finding Gardening so much attended to. The first place I visited was the garden of DAVID E. EVANS, Esq., where I was highly gratified with the general features of the place, the neatness, order and high keeping that pervaded the garden in every department. The garden forms an oblong square, and I should imagine occupies about two acres. The whole is disposed and arranged in a very judicious manner, and on just principles. An excellent gravel walk leads through the center lengthwise from the house, and at its termination an elegant Green House has been recently built, which has an excellent effect. This house is well stocked with many choice exotics and free and ornamental flowering plants, the whole of which are clean, healthy and in excellent condition. From the house, half way down this walk, there are trees on each side, which, from a sitting apartment in the house, afford an admirable telescopic vista with the green house in the distance. I find the credit of the plan and the arrangements is due to MRS. EVANS; and I have little doubt, from all I could learn, that this lady's example has done a great deal in creating the Horticultural taste which now exists in Batavia. The neatness, order, and keeping of the place do Mr. Logan, the Gardener, the greatest credit.

Dr. VANTUYL has a very neat little spot, well stocked with choice plants, and in excellent order. Here again I understood it was the lady who merited the credit. This is as it should be. 'Tis, as I have said in a former number of the Farmer, from the exertions and laudable example of the ladies we must expect the ornamental branches of gardening to succeed. This department of the art is under their fostering care, and I have little doubt, from daily observation, they will pay every attention to their bantling, nurture it with care, and in a very short time show it full grown, perfect, and complete.

NATHAN FOLLETT and TIMOTHY FITCH, Esq'rs., are forming very extensive gardens. That of the former is in a considerably advanced state—that of the latter in embryo. I would not be doing justice to either if I were to pass a remark on them at present, further than to say, as far as they have proceeded, they met with my entire approbation.

In mentioning the above gardens only, I have not omitted others with the view of making invidious distinctions: by no means,—but my stay at Batavia was limited to a few hours, and I have little doubt from the general characteristic features of the parterres in front of the houses, had time permitted me to examine the gardens at large, I should have seen much to admire and much to commend. Those mentioned were such as my own immediate business made it desirable for me to visit. In conclusion, I have to state, I saw several English Hawthorn Hedges at Batavia in the most thriving condition, not surpassed by any I had ever seen either in England or Scotland.

I am, very respectfully,

ALEXANDER GORDON.

Rochester Nursery, Main-St., June 3, 1833.

FARM REPORTS.

There is perhaps, no way by which farmers can obtain more knowledge, in relation to their own business, than by comparing their labors and mode of management, with those of others. Not simply, the products of an acre of ground, nor the modus operandi in tilling certain crops, or rearing certain animals; but the *general* and *particular* mode and manner of doing *every thing* connected with their business, year in and year out, from the sowing of an onion bed, to the tillage of a thousand acres. This can be done in no way so effectually as by each farmer's writing out a "*farm report*," detailing particularly his whole process and business, from one years end to another, specifying at the same time, the circumstances of his farm, its situation, soil, and general or particular characteristics.

I observe that this is occasionally done by the Massachusetts agriculturists, through the medium of the New England Farmer, and it must always have a happy effect in the dissemination of useful knowledge. Every farmer then sees at once, what is the cause of the thrift of one, and the misfortunes of another, and he is thereby led to adopt or discontinue any particular course which may either impede or advance his own interests.

Information too in regard to particular branches of husbandry may thus be gleaned from each other, which would probably be elicited in no other way. For if one farmer describes his mode of farming, and another thinks it defective, the latter will pretty surely tell him of it, either through the pages of an agricultural paper, or in some other way; and if a discussion arises in regard to the subject, so much the better; for discussion usually elicits light.

For instance—one man in reporting the labor of his farm, if it is principally devoted to the dairy, will describe minutely his process of making CHEESE; and another will object to it. Now we all know, what a diversity of opinion and of process there is on this subject. Every dairy woman has her *own way*, and her *own opinion*; and *they are all right*, and *perhaps*, they are all *wrong*. One thing is certain, that in this country there are hardly any *two* cheeses alike, whether good or bad, and therefore there can't be much uniformity of process.

Now to exemplify this matter, I will give you the REPORT of one of *my farms*, (and by the way I have a great many,) which is situated in Gloucestershire, England, where the dairy business is carried on pretty extensively. And I am more particularly led to notice this farm, from some observations made in the 1st vol. Genesee Farmer, pages 68, 76, 84, 194, on the subject of CHEESE. And I hope my worthy coadjutor, *Ulmus*, will not be "*shy*" of this report, or refrain from reading it, because it happens to have been written in old England, or smell a little too strong of *cheese*. By the way, a word or two, to this adopted cousin of mine.

I heartily agree with you in the main, in regard to foreign, as well as domestic books, and shall rejoice to see the time, when the mass of trash which now loads the shelves of our booksellers, shall be consigned to the flames, and replaced by something more substantial and useful. But, my dear sir, though you and I, are doubtless very clever *Elms* and *Oaks* in our way, we must bear in mind, that we are but *transplanted* stalks from the land of "wooden nutmegs," where we obtained the most of our knowledge, and experience, and habits of observation. It is an old adage that people who live in glass houses, should not throw stones. Now, who knows, but that your neighbors and mine, are "poking fun" at us, for our officious attempts to *enlighten* them with our "yankee notions" and foreign nonsense! Be it so. What care we! I frankly acknowledge that like yourself, I am not very firmly *rooted* to any *particular spot*, and that the principal part of my *farming* is *book farming*. But it is one thing to know how work should be done, though it may be another to do it; and suppose we don't plough and harrow, or plant and sow, nor mow and reap, yet there is no little satisfaction in seeing all these matters done up in proper time, and "secundum artem."

Why, sir, I suppose I have no less than an hundred farms like the one I shall describe, (and perhaps you have as many more) and every few days I have one or two spread out on my large oaken table. What infinite delight, to sit down and trace out its boundaries, arrange its buildings, ornament its grounds, lay out its gardens; plant this lot, sow that, summer fallow another, and seed down another! Then how pleasant, to step into the dairy, or the poultry yard; or even to go into the barnyard, and admire this Devonshire or Durham calf, or that Eclipse or Bussorah colt! Or to retire to my great oaken arm chair in the door of the large front hall, and there admire the beauty of the surrounding landscape; the luxuriance and fragrance of the overshadowing foliage; and the thrilling notes of the feathered songsters. We all know that half the pleasures of this life are ideal, and why should not you and I amuse ourselves, and others if you please, in this innocent mode of castle building!! And if with all that's ideal and visionary, we mix a little reality, and thereby strike out some new idea which may benefit our neighbors, we shall have the consolation of feeling that we have done them a kindness, while we do ourselves no injury. QUERCUS.

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From the Farmer's Series of the Library of Useful Knowledge.

Report of the Frocester Court Farm, in Gloucestershire England.

DESCRIPTION OF THE FARM.

The farm of Frocester Court contains between four hundred and five hundred acres, about four hundred of which are in old pasture. It lies in the vale of Berkeley, at the foot of the Cotswold hills, about eleven miles from the city of Gloucester, eight from the town of Berkeley, and five from the river Severn. Its general aspect is towards the north, having Frocester hill, part of the Cotswold range, on the south of it, from the edge of which it reaches about two miles from the river below. It is all inclosed with hedges and ditches. The hedges are for the most part broad, and composed of black and white thorn, hazel, &c. These

hedges are very old, and probably have been formed by being left, when the ground was first cleared from its natural wood, with which the whole of this vale seems once to have been covered.

The soil is of two kinds. The one of these, on the sand formation, which lies above the blue lias clay, is of a light sandy nature, of a brownish color, containing a considerable portion of vegetable matter, and naturally producing ferns, and good, sweet herbage. Its distance from the farm buildings, and its elevation, being upwards of three hundred feet above them, induces the farmer to keep it in constant pasture for sheep and young beasts.

The second kind of soil, which is upon the blue lias clay, is of various depths, and contains an admixture of vegetable mould and clay, thickly interwoven with fibre in a decaying state, decreasing in quantity as the depth of the soil decreases The whole of this soil, where it is deep appears to be full of vegetable matter, and where it is dry, or on a bed of calcareous gravel, it produces a most abundant herbage of the richest quality, which varies in its nature and richness with the nature and depth of the soil. A great portion of decaying vegetable matter in the soil would, therefore, seem essential to the production of rich pasture. The fields, which are nearest to the home-stead, have been pastured from time immemorial. Some of these, having a sub soil of calcareous gravel, and being naturally dry, their herbage is of a quality superior to that of the rest of the farm, and they are thickly covered with the finest and most nutritive grasses.

The farm buildings are situated at the north-west side of the farm. These are a good dwelling-house, a dairy-house, feeding stalls for twenty-five beasts, two shades, several courts, stables, and a barn two hundred feet long and thirty wide, built about 600 years ago, and now used as a store for the best hay.

MANAGEMENT OF FIELDS.

The principal object of the dairy-farmer in the management of his fields, is the production of good pasture and hay for dairy-cows, and for raising as many young cows as will be required to fill up the place of those, which either from age or casualties fail in being productive milkers.

It is generally thought that grass-land should be pastured and mown alternately; and when the ground is never manured, this would seem to be the best way of managing it, unless, as is the case in most farms, there are certain grounds, which, when pastured by cows, produce not only much the greatest quantity of milk per cow, but also much the greatest quantity of cheese per gallon: these grounds the intelligent farmer will select for pasture to his cows in preference to all the others. Hence, on most dairy-farms, there are grounds that are always pastured, being those that are most productive of cheese, and for the most part, nearest to the home-stead. Of course there are, on such farms, other grounds, which are mown every year. With respect to these we would remark, that as, though frequently manured, they are sometimes apt to be overrun with yellow-rattle, a biennial weed, they should be pastured for, at least, two years in succession, and the ground should be skimmed over with the scythe, when the weed is coming into flower. This would completely extirpate it.

The poorest fields of this farm are seldom or never allowed to be pastured in the spring, as it throws them far back at harvest-time. Some of the fields that are manured, are generally kept for pasture for the sheep in the spring, upon which they are folded, and get a fresh portion of the field every day, by which means the grass is eaten up clean. When there is a scarcity of keep, this is sometimes continued till the middle of April or beginning of May, when the ground is cleaned, and shut up for hay.

Draining.—The whole of this farm has been drained. The draining plough has been resorted to, where the sub-soil of clay is near the surface; and in pasture land, where the plough reaches the clay, this mode is both the cheapest and most effectual. Turf-draining answers well, where the turf is strong enough to bear ramming; and where it is not, stone or draining tiles answer the best, but they are both more expensive than turf-draining.

Manure.—From the small quantity of arable land on this farm, there is very little straw raised and none of it can be spared for litter to the cows, when foddered in the several courts. The dung, therefore, that is collected in the court-yards is of the richest description, the whole of it having passed through the stomachs of the animals. It is frequently mixed with earth and the scourings of ditches, and is always carried to the mowing ground in the beginning of winter—in the time of a frost, if possible, that the turf may not be injured by the hauling of it over the ground.

The land which is pastured by cows is never manured, manure imparting a rankness to the grass, which not only gives a rank flavor to the cheese, but also makes it 'heave' or ferment, which is injurious to its quality.

There being a great deal of dung collected on this farm, the mowing ground is generally manured once in two years. The dung being spread over the ground with hay forks, is brushed into the ground the first fine weather in Frebuary or March, with a brush harrow, made of a heavy gate, between the rails of which thorns are fixed, and which is generally loaded with a log of wood. This brush harrow is drawn over the ground by a horse, going at a very quick rate; and after it has done its work, all the stones and sticks are picked off the ground, which is then rolled and harrowed up for mowing.

Dressing or cleaning up the Ground.—About the first of March, or earlier, if the weather is dry, they begin on this farm to clean up the pasture as well as the mowing grounds, and to 'hain' or shut them up, either for mowing or for the dairy-cows to be turned into in the end of April or first week in May. This operation is performed by men, women, or boys, with the common hay-fork, which with the back downwards, is swung right and left upon the dung, which the beasts have dropped during the time they were foddered in the field, and also upon the molehills, which by this operation are beat into small pieces and at the same time, scattered over the ground, or rather rubbed into it. The waste hay, all straw, stones, sticks, &c, are picked up and carried off the ground, before it is rolled, in the end of March or beginning of April. The fields, when thus cleaned, are shut up, whether they are for mowing or pasture; and those grounds that are to be the latest mown are the last that are cleaned and shut up.

All the rough grass, which the cows do not eat is mown off, and the weeds cut up once or twice a year. The rank grass produced on those spots on which dung has been dropped in the spring the cows do not eat, and it is 'skimmed over' or mown, and made into hay for young stock in the winter. From these spots, after being mown, there springs a new crop in autumn. If they were not mown, the long grass would decay and get rotten at the bottom. These tufts of rank grass are, however, sometimes left, and eaten up by store stock in winter.

Hay.—The age or state of ripeness, at which a crop of grass is cut for hay, is of great importance, for on it depends the quality of the hay. The earlier it is cut, the better will be the quality of the hay, and the greater will be the quantity of the after-grass; and the longer it stands before it is cut, the greater will be the quantity of the hay, but it will be of an inferior quality, and the after-grass will be diminished in a much greater proportion than that in which the hay is increased. Early mowing, therefore, is always practised on this farm. The mowing begins the last week of May or the first week of June, when the grasses are in blossom, and when they are seldom more than six weeks old

The mowing should be so performed, that neither the strokes of the scythe nor the junction of the swarths can be discerned. This is easily accomplished by fixing the scythe to the handle, so as to have it level with the ground during the operation of mowing, by not taking on too wide a swarth, and by making the scythe come out a little beyond the standing grass every time.

The more expeditiously grass is converted into hay, and the more of the natural juices of the grass the hay retains the better is its quality. It cannot be too often tedded or shaken abroad, while passing from a state of grass to a state of hay, particularly in the first stages of the process. The hay-machine, therefore is of great advantage in the work; for beside that a boy and a horse can, with it, do as much work as eight men, it does the work with more expedition and much more perfectly, all the grass being completely separated and spread regularly over the ground to dry; and the hay in consequence, is at least ten per cent better in quality than that which is made by the hand.

The hay in three or four days after mowing, if the weather is favorable, is either put into wind cocks or carried to the rick. The ricks of hay are made in those fields which are dry, and in which it is intended to fodder some of the stock during winter. The best hay is taken to the home-stead, and either ricked in the yard or put into the large barn formerly mentioned, in which several hundred tons of hay can be secured.

STOCK.

Mr. Drinkwater S. Hayward has rented this farm for thirty, and his family for many years. He keeps a pack of a hundred cows, composed of the best milkers, or those from whose milk the greatest quantity of cheese is made; and in selecting calves for weaning to keep up his stock, he takes those of the best milkers. His stock is of a mixed breed; and that which he prefers is a cross of the Gloucester, and the Alderney with a Durham bull, producing a stock half Durham, one-fourth Gloucester; and one-fourth Alderney. Having had the good fortune to get an excellent milker of the true Hereford breed, a very uncommon thing, he is proceeding in the same way with this cow, crossing first with an Alderney and then with a Durham bull This stock of course is one-half Durham, one fourth Alderney, and one-fourth Hereford; he expects it to be of a very superior kind, and not only excellent milkers, but of the finest symmetry and with high feeding properties; and from the present appearance of the stock, there is every reason to think this will be the case

To keep up his stock of dairy-cows, Mr. Hayward weans thirty heifer-calves every year. Some of those that are weaned before March produce calves when two years and a quarter old, and all the others come in at three years old. Mr. H. has, therefore a hundred cows, thirty heifer-calves, thirty year-old heifers, thirty two-year-old heifers, and thirty three-year-old heifers; which last take the place of thirty cows that are yearly drawn from the stock, and disposed of. These thirty cows consist of such heifers as have slipped their calves, or have proved 'empty' or barren, and of aged cows, which are sold to graziers. The young cows are disposed of as soon as possible; but the old ones are kept as long in autumn as their milk will pay for their keep

Management of Cows.—The cows are generally turned out to grass in the end of April or beginning of May, upon those grounds which Mr. Hayward has found, from experience to produce the most and the richest milk These grounds are nearest to the home-stead, and have always been pastured. The driving of the cows before milking, and the carrying of the milk to any considerable distance, are found to injure the quality of the cheese; and to avoid this consequence the pasture-grounds should always be, as on this farm, near the home stead.

The cows on this farm, are divided into three lots, the young and weak ones being in one lot. Each of these three lots has two fields of pasture, and they are generally kept a week at a time in each field; so that they have fresh pasture every week—an advantage much greater than most farmers are aware of. Great care is taken never to overstock the pasture of the cows. They ought, at all times, to have a full bite of close, short, fine grass. Long overgrown grass gives a rank flavor to the cheese, and should always be avoided.

In dry seasons, when the pasture has got too short, some of the fields that were intended for mowing are given up to the cows for pasture. When the hay is all cleared off the mowing grounds, and the after-grass begins to grow, (it generally takes several weeks to make much ap-

pearance,) the cows are shifted into these grounds. Land which is long pastured by any animal gets foul or unsound for it, and the after-grass always makes the cows spring their milk. They are, therefore, generally moved from the pasture grounds into the after-grass before there is much of it for them.

It is very essential for cows to have a shade and water in every field. The shade of large trees, however, is the only shelter from the sun and the storm, which they have on this farm, and indeed in the whole vale.

Cows should, in winter, be kept as warm and comfortable as possible Every dairy should be provided with shades and warm courts for the cows; but in the vale there is scarcely an instance of accommodation of this kind for one-fourth of the cows, and there is not more on this farm. Hence most of them are foddered in the dryest and warmest grounds; and before calving, they get hay served out to them morning and evening; but after calving, they are fed three or four times a day, and with the best of the hay.

Calves.—The calves are allowed to remain with their mothers for about a week after they are dropped, because the milk, during this time, would not do for making cheese The best of the heifer calves are selected for breeding. Such of the remainder as are dropped before March are fattened; those that are dropped after that time are sold young, as, then, veal generally becomes cheap, and milk is of more value for making cheese than for feeding calves

After the first week, the calves that are to be weaned are parted from their mothers, and put on the calves' stage a sort of crib erected in the calves' houses, which being raised one foot from the ground, and being open in the bottom, keeps them dry without the help of litter. Here they are allowed two quarts of sweet milk in the morning, and the same quantity in the evening, for the first six weeks. At the end of this period they begin to eat hay, some the best of which is given to them; and, instead of milk, they get a mixture of sweet milk and water. They are turned out into some of the earliest and best pasture, as soon as there is any for them

The whole breeding stock are distributed into lots, according to their ages, and kept apart summer and winter. They are kept either on the upper field of this farm, or taken to another farm on the hills, where they are treated in the same way as the breeding stock are on Beverston farm.

Sheep.—There are upwards of three hundred sheep kept on this farm. They pasture the upper field in summer; and in autumn and winter they eat up the rough grass left by the cows. The management of the sheep is the same as that practised on Beverston farm, to the account of which we refer the reader.

Pigs.—Upon this and every dairy farm a number of pigs are necessary to consume the whey,—one pig to two cows in summer, but not so many in winter. Their food, in summer, is grass, clover, vetches, and whey; in winter, raw potatoes, with tailing corn, whey, and skimmed milk. When they are being fattened, bean or barley-meal is mixed with boiled or steamed potatoes, in the proportion of a bushel of meal to two cwt. and a half of potatoes. The breed of pigs kept on this farm is the Berkshire, with a small mixture of the Hereford. Some of them are sold in a store state; most of them are fattened. Five or six breeding sows are always kept, which are regularly fattened off, when one year and a half old, and fed to about three cwt.

(To be continued.)

PLASTER.

Friend Tucker—I have read the communication of *Plough Jogger* against the use of Plaster. He wishes to be thought to speak modest, yet he writes as if he supposed his arguments could not be refuted. I admit, with him, that it is manure which supports vegetation. Though plaster may act as a stimulant, yet it produces much larger crops than would otherwise grow, and consequently we gain manure in proportion to the effects of this stimulant, which, if added to the soil again, benefits us in the same degree that the vegetable substance has been increased. For instance, if we take a piece of poor dry land, seed it with clover and timothy, and plaster it well, the plaster will increase the sod so much, that when ploughed up it will produce a much better crop than it had before done. So, if Plough Jogger had left on his field part of the extra quantity of clover which grew on it in consequence of the use of Plaster, he would not probably have condemned its use.

I am a practical farmer, having been brought up to it from my youth, in one of the eastern and richest counties of this state, where probably one-half has been gained by the use of plaster. The people began to use it many years before my remembrance, and still continue to use it plentifully with hardly a dissenting voice. My father's farm has increased, I presume, one-half or more in the quantity of its vegetable productions since he began the use of plaster, which has been used pretty freely for as much as forty years, and still continues to have a good effect. I know also a tract of land near my native place, which 50 or 60 years since was a barren plain, and could have been bought for sixpence per acre, but which has come to be some of the most valuable land in the county, merely by the use of clover and plaster. It would now sell for fifty to one hundred dollars per acre, which is proof that plaster is valuable on land. I do not hesitate to say, in conclusion, from experience and observation, that when plaster is rightly used it is a great benefit to many kinds of land, Plough Jogger's assertion to the contrary notwithstanding. E. WILBUR.

Jerusalem, 5th mo. 13, 1833.

Axioms in Vegetable Physiology.

FOOD AND SECRETIONS.

Plants are nourished by the absorption of food from the earth, in consequence of which they grow, and produce their peculiar secretions.

The growth of plants is very rapid; that of the leaves is such that they often gain six or seven times their original weight per hour.

The food of plants consists of water, holding various substances in solution. The roots have the power of separating these substances [since disproved] and selecting [retaining] such only as are congenial to the nature of the species.

As soon as it is absorbed, it begins to ascend in the stem.

The ascending fluid is called *sap;* it consists chiefly of water, mucilage and sugar, mixed with a small quantity of such peculiar secretions of the plant as it may dissolve in its course. It does not alter its nature materially until it is discharged into the leaves.

It is put in motion by the newly developing leaf-buds, which, by constantly consuming the sap that is near them, attract it up from the roots as it is required. Therefore, the movement of the sap is the effect, and not the cause, of the growth of plants. It depends upon a vital irritability, and is independent of mechanical causes.

After the sap has been distributed through the veins of the leaves, it becomes exposed to the influence of air and light, and undergoes peculiar chimical changes. In this state it is called the *proper juice.*

Hence the great importance of leaves to plants, and the necessity of exposing them to the full influence of light and air, for the purpose of securing a due execution of their natural functions.

Hence also, the impropriety of mutilating plants by the destruction of their leaves.

In exogenous plants, the upward course of the fluids is through the alburnum, [sap wood,] their downward passage through the bark, and their horizontal diffusion takes place by the medullary rays.

The most important chimical phenomenon connected with the growth of plants, is the property possessed by their leaves or green parts, of absorbing oxygen and parting with carbonic acid gas in the dark; and of parting with their oxygen under the influence of the sun.

The alternate action of this phenomenon is supposed to cause, in conjunction with the peculiar vital powers of particular species, all the variety of proximate and foreign principles found in vegetables.

No plants can long exist in which an alternate absorption and expulsion of oxygen does not take place, except fungi.

The expulsion of oxygen is determined by the quantity of light to which a plant is exposed. Light causes the decomposition of carbonic acid gas, and the accumulation of solid matter.

Hence if a plant is exposed to too strong a light it perishes, from the excessive expulsion of oxygen.

And if it is not exposed to the influence of light, it dies from the accumulation of that principle.

If there is too great an accumulation of oxygen, an attempt will always be made by a plant to reach the light, for the purpose of parting with the superfluity; as in seeds, which, in germinating, shoot from darkness into light.

If this cannot be effected, *etiolation* first takes place, which is caused by the accumulation of oxygen, and the consequent non-deposition of carbon; and death succeeds.

Seeds will not germinate in the light, because light decomposes their carbonic acid gas, expels the oxygen, and fixes the carbon, whence all the parts become hardened.—*Lindley's Introduction*

Mr. Thomas Hibbert, a distinguished Florist of Philadelphia, and author of "The American Flower Garden Directory," died a short time since in that city.

ROCHESTER NURSERY.

THE Subscriber has just received a large quantity of *Mangold Wurtzel* or *Field Beet, and Ruta Baga Turnep Seed*, shipped in London on the 14th of March last, to which he would beg the attention of Farmers in general, as both those roots have been proved by various farmers in the Genesee country, and have been found to answer every expectation, being decidedly the best succulent food for cattle in winter.

☞To counteract false reports which have been circulated by those interested in injuring the Rocheste Nursery, the subscriber deems it just to himself and to those who have patronized him, distinctly to state, that every *Tree* or *Shrub* brought to the Rochester Nursery was grown either on the respectable establishments of Messrs. Buel & Wilson at the Albany Nursery, or at that of Messrs. James Boodgood & Co., at Flushing, Long Island, and the whole assortment of seeds were received in New-York in 1832, from Mr. George Charlwood in London, expressly for the subscriber. Orders addressed to the subscriber, will meet with every attention and be executed with care and despatch. ALEX. GORDON.

Rochester Nursery, May 15, 1833.

PASTURE.

To make the most of pasture land, especialy if it be fertile, it should be well fenced in small lots of four, eight, or twelve acres, according to the size of the farm, and the number and size of stock. There should be trees, for shade, thinly scattered over the pasture land, but not too many in a place. Cattle should not be turned into any pasture till the grass is so much grown that they can satisfy their hunger without rambling over the whole lot. Dr. Deane observed that the 20th of May is early enough to turn cattle into almost any of our pastures. Out of some they should be kept later. The driest pastures should be used first, though in them the grass is shortest, that the cutting and punching of the surface of the ground by the cattle's feet may be avoided.

It is not right to turn all sorts of cattle into pastures, promiscuously. Milch Cows, working oxen, and beasts, which it is intended to fatten, should have the first feeding. Afterwards, sheep and horses will find good picking. When a lot has been fed till the grass has become short, shut it up, and the manure which has been dropped, should be beaten to pieces, and spread over the surface. Let the next lot be managed by the same method.

Dr. Deane observed, "Let the stock of a farmer be greater or less, he should have at least four inclosures of pasture land. One inclosure may be fed two weeks, and then shut up to grow. Then another. Each one will recruit well, in six weeks; and each will have this space of time to recruit. But in the latter part of October, the the cattle may range through all the lots, unless some one may become too wet and soft. In this case, it ought to be shut up, and kept till feeding time the next year.

Pastures which are too wet, should always, if possible, be drained. A low, miry pasture is particularly injurious to sheep, as it is apt to cause the rot. Cattle or sheep fatted in dry pastures, have better tasted and more wholesome flesh than those which are fatted principally on the coarse produce of wet pastures.

There are greater advantages in feeding pastures in rotation than many farmers are aware of. "One acre," said Dr Deane, "managed according to the above directions, will turn to better account than three acres in the common way."

Sheep require no water in their pastures; it is also thought by some, that calves and horses are best without water, unless the latter are worked. If these animals have no water, it is said they will feed in the night and lie down in the heat of the day. Milch cows, however, require water.

The bottom of an old hay-stack is recommended as an excellent manure for pasture land, as, besides the nourishment which it affords, it contains a quantity of grass seed, which furnishes a new set of plants. It should never be suffered to mix with manure for grain or corn lands, as it will cause them to be overrun with grass or other plants, which, though useful in a pasture, are weeds in arable lands.—*New England Farmer.*

SOILING.

This is a term applied to the feeding of domestic animals on new mown grass, or other green crops, in racks, yards, stables, &c. If a farmer possesses more stock than land, and can obtain labor without paying too dear to make it expedient to attempt the niceties of cultivation, soiling may prove beneficial. "Every farmer," says Lorain, "should soil his working cattle and horses, whether he may or may not enter into the general practice of soiling. A very small extent of ground will be sufficient for that purpose. This may be so near the barn that the trouble will be but little more if so much as going to the pastures after them. The gross and rich dung, saved by this practice, will be very valuable."—*Ib.*

It is stated in the National Intelligencer, that seven inches of rain had fallen in the course of the past month. A greater quantity than was ever before known to fall within the same period.

A fool's tongue is long enough to cut his throat.

GENIUS AND INDUSTRY.

While we believe that education is the greatest gift that can be conferred on a human creature, we are not sanguine enough to expect that its more general diffusion will increase the number of men of genius. There is a perversity in human nature which makes us relax our efforts at the moment when they might be rewarded with the most splendid success. It does not follow that a shepherd boy, who passes his long day on the side of a hill, and who acquires the principles of mechanics, or forms for himself a plan of the stars, shall make proportionate advancement it full opportunity of study be afforded to him.

Nor does it follow that a young man who teaches himself to read by the light of a shop window in the street, shall become a learned man when admitted to libraries and encouraged by applause.

We do not think the illustration a correct one, which represents the scholar as like the weary traveler who plods on contentedly through and over irregular grounds which conceal the prospect and who faints when he has ascended to the top of the hill and sees the whole extent of the road before him.

The truth seems rather to be, that energy of mind, like strength of body, must be acquired by exercise, and that the consciousness of desert in encountering difficulties, must be felt to enable us to accomplish any great work. Sir Joshua Reynolds has happily expressed this:—

"It is not uncommon to see young artists, while they are struggling with every obstacle in their way, exert themselves with such success as to outstrip competitors possessed of every means of improvement. The promising expectation which was formed on so much being done with so little means, has recommended them to a patron, who has supplied them with every convenience of study; from that time their industry and eagerness of pursuit have forsaken them; they stand still and see others rush on before them

"Such men are like certain animals, who will feed only where there is little provender, and that got at with difficulty through the bars of a rack, but refuse to touch it where there is an abundance before them."

From this it appears to be essential to success that a young man should study to acquire confidence in his own powers. This is a condition of mind entirely different from conceit; it exhibits itself in no vain boasting, but essentially consists in a secret resolution to make great efforts by persevering industry, to gain the object of his ambition.

We believe that young men would entertain these notions oftener, if they were not deterred by an erroneous fancy of what belongs to genius They think that such exertions as we recommend belong only to a plodding fellow, whilst the man of genius does every thing by a sudden act which costs him nothing.

This is an unhappy mistake. All our eminent men have been distinguished by fixing upon some great object, and possessing themselves of such a lively conception of it that it has led them on through years of toil.—*Penny Magazine.*

CEMENT IN IRON FILINGS.

Mr. Mailtre, having reflected upon the action of vinegar in the preparation of the cement, known as *mastic le lunaille*, which is made of iron-filings, garlic, and vinegar, so proportioned as to form a mass of moderate consistency, proposed to substitute for the vinegar sulphuric acid, diluted with water, in the proportion of one ounce to a little more than two pints of water, and to reject the garlic as useless. This alteration was soon adopted by all to whom he communicated it in Paris, and will save in Paris alone more than ten thousand francs annually. This cement is then employed to close the seams of stones with which terraces are covered. The iron-filings becoming oxidised, occupy a larger space—their oxidation being facilitated by the action of the acid, and the joints become exactly closed.—*Mechanic's Mag.*

A good name is better than riches.

PAINT FOR HOUSES.

Robert R. Harden, in a letter to the "Souther Planter," gives it as his decided opinion, that no spirits of turpentine ought to be used with the articles employed in painting houses. He says that painters will tell you they put it in to cause the oil to dry. But the fact he says is, that the oil is decomposed, and the preservative effect destroyed. In proof of this, it is stated nothing will take grease spots out of clothes, or remove oil spots from a floor, like spirits of turpentine. This it is affirmed, is within the knowledge of every housekeeper and washerwoman. Mr. H. says, that two coats of oil and paint, if the spirits of turpentine be omitted, will cause the timber to be very lasting, while the painting will also retain for a long time, its original beauty; but that otherwise the paint will soon wash off, and the decay of the timber will be very little if at all prevented. The oil of Palmi Christi is said to be equal to that of flax-seed, if not superior for preserving wood.

THE IMPORTED HORSE,

SIR ISAAC.

THIS celebrated Horse of the Cleaveland Bay breed, was sent to this country from England by Admiral Sir Isaac Coffin of the British Navy. Said horse was bred in Yorkshire, (England,) and selected under the Admiral's orders as superior of his breed, and cost when two years old one hundred Guineas—is a beautiful dapple bay, black mane, tail and legs, and stands sixteen hands, and is powerfully built—was sired by the famous horse Molineux.

This breed of horses is highly esteemed for gentlemen's carriages, and particularly for farming purposes. His colts are almost uniformly of a bay color, and is a sure foal getter.

He will stand at the stable of the subscriber in Perrinton, at five dollars the leap, and eight dollars to insure a foal. Good attention paid by,

GIDEON RAMSDELL.

Perrinton, April, 1833. m4 8

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THE advertisers, SMITH & HOGG, in announcing the completion of their Spring Stock of Seeds, &c., take this opportunity of tendering their thanks to their numerous friends and the public, for the support they have always experienced from them. They feel assured from their personal superintendence, and careful attention to every minutia of their business, extensive and varied as it is, that they offer an assortment embracing in their line every thing of a sound and productive quality. Amongst which will be found the following articles: Winter & Spring Tares Perennial Ray Grass, Meadow Fesure, Foxtai and Sweet Vernal Grasses, Sainfoin, Lucerne, Trefoil, White and Red Clover, and other Seeds both for Farming and Gardening.

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